

Active Probe for SMDs

P6245 * P6243

Characteristics



P6243.

[Features](#)

> [Specs](#)

[Ordering Information](#)

[Pricing Information](#)

[Print Data Sheet \(1.01MB\)](#)



[Request a Quote](#)

Choose a Language:

GO



[Top of Page](#)

[Features](#)

> [Specs](#)

[Ordering Information](#)

[Pricing Information](#)

[Print Data Sheet \(1.01MB\)](#)



[Request a Quote](#)

Probe Type	P6243	P6245
Cable Length	1.3 m	1.3 m
Attenuation	10X	10X
Bandwidth in GHz (Probe Only)	1	1.5
Rise-time	< 350 ps	< 250 ps
Input C in pF	≤1 pF	≤1 pF
Input R in Ohm	1 M	1 M
Linear Dynamic Range	±8 V	±8 V
DC Offset Range	N/A	10 V
Max Voltage (Nondestruct) (DC+PkAC)	±40 V	±40 V
Propagation Delay	5.3 ns ±200 ps	5.3 ns ±200 ps



Tektronix Measurement products are manufactured in ISO registered facilities.

60W-13989-3p1, 06/1997, 11/17/2000

1 GHz Active Probe for SMDs

P6243 • P6243S • P6245



Features

P6243

- ≤ 1 pF Input Capacitance
- 1 GHz Bandwidth (probe only)
- 1 M Ω Input Resistance
- Direct Access to SMDs as Small as 0.5 mm Pitch
- Measures CMOS, BiCMOS, ECL, GaAs and TTL logic
- Low Mass Probe Head/Cable
- No Additional Power Supplies or Cables Are Required with TEKPROBE™ BNC Interface

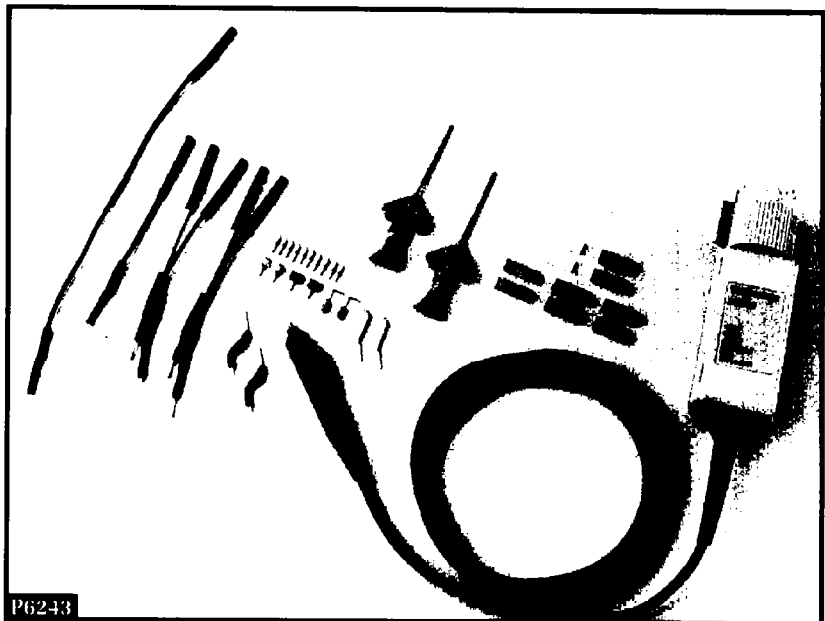
P6245

- ≤ 1 pF Input Capacitance
- ≥ 1.5 GHz Bandwidth (Probe Only)
- 1 M Ω Input Resistance
- Direct Access to SMDs as Small as 0.5 mm Pitch
- Measures CMOS, BiCMOS, ECL, GaAs and TTL logic
- Low Mass Probe Head/Cable
- No Additional Power Supplies or Cables Are Required with TEKPROBE™ BNC Interface



Applications

- High-speed Digital Systems Design
- Component Design/Characterization
- Educational Research
- Manufacturing Engineering and Test



P6243

1 GHz Active Probe for SMDs for TEKPROBE™ BNC Interfaces

P6243

The P6243 Active FET probe is the high performance probing solution for 500 MHz Digital Storage Oscilloscopes. The P6243 has a probe only bandwidth of 1 GHz and will provide a 500 MHz system bandwidth when used with Tektronix' full line of 500 MHz DSOs. In addition, the P6243 is powered by the TEKPROBE™ BNC interface, eliminating the need for additional power supplies and cables when used with TEKPROBE™ BNC oscilloscopes.

The P6243 offers superior signal acquisition on surface mount devices compared to the much higher capacitive loading of passive probes. The P6243 has ≤ 1 pF capacitive loading which allows it to measure high speed signals without affecting the signal or device under test. Furthermore, the included accessories and adapters allow for easy attachment to SMDs.

P6243S

The P6243S is the ideal package for using the P6243 on non-TEKPROBE™ BNC oscilloscopes. The P6243S consists of 2 P6243 probes and the 1103 TEKPROBE™ Power Supply. This provides the full performance of the P6243 (except automatic scale factor readout) on any oscilloscope, including Tektronix' TDS300 Series and 2400 Series oscilloscopes.



P6243S



See Tektronix on the World Wide Web:
<http://www.tek.com>



ISO 9001 Tektronix Measurement products are manufactured in ISO registered facilities.

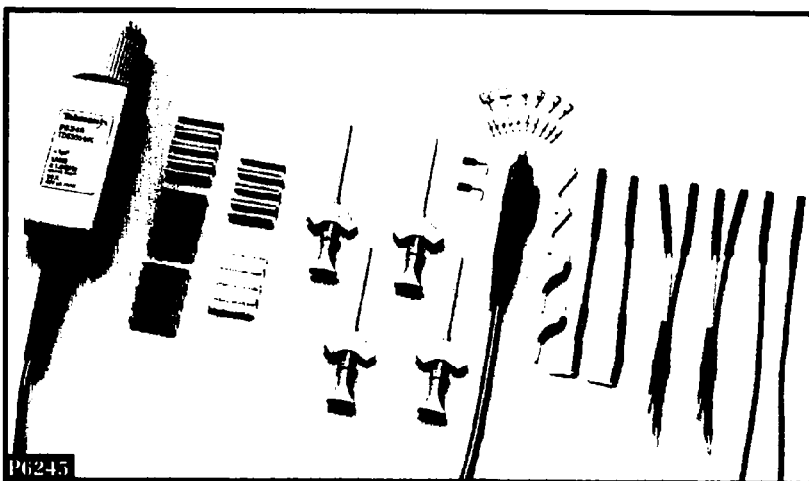
Active FET Probe for SMDs

P6243 • P6243S • P6245

P6245 Active FET Probe for TEKPROBE™ BNC Interfaces

The P6245 Active FET probe provides the electrical and mechanical performance required for today's digital systems designs. The P6245 achieves high-speed signal acquisition by solving three traditional problems:

- Lower DUT loading (≤ 1 pF/1 M Ω probe loading)
- Direct and easy access to SMDs (Small compact probe head and versatile attachment accessories allow direct connection to the DUT.)
- Access DUT signals at scope bandwidth (P6245 Active FET Probe provides scope bandwidth at the probe tip for the TDS 684A and TDS 784A.)



CHARACTERISTICS

Probe Type	Cable Length	Attenuation	Bandwidth in GHz (Probe Only)	Rise Time	Input C in pF	Input R in Ω	Linear Dynamic Range	DC Offset Range	Max Voltage (Non-destruct)	Propagation Delay
P6243	1.3	10X	1.0	350 ps	<1 pF	1M	± 8 V	N/A	± 40	5.3 ns ± 200 ps
P6245	1.3	10X	1.5	267 ps	<1 pF	1M	± 8 V	± 10 V	± 40	5.3 ns ± 200 ps

ORDERING INFORMATION

P6243S

Active Probe System.

Includes: Two each P6243 Active Probe, 1 each 1103 TEKPROBE™ Power Supply.

P6243

Active Probe.

Includes: Two each, 50 mil, 25 mil (0.65 mm), and 0.5 mm SureFoot™ Adapters; 10 each Solderable Probe Tips; 2 each 1 in., 1 each 3 in. and 6 in. Ground Leads; 1 each Y Lead Adapters; 4 each SMT KlipChip™; 2 each of 5 colors. Cable Markers; 2 each Spring Adapter; Right Angle; and Instruction Manual.

P6245

Active FET Probe.

Includes: Two each: 50 mil, 25 mil (0.65 mm), and 0.5 mm SureFoot™ Adapters; 10 each Solderable Probe Tips; 2 each 1 in., 3 in., and 6 in. Ground Leads; 2 each Y Lead Adapters; 4 each SMT KlipChip™; 2 each of 5 colors. Cable Markers; 2 each Spring Adapter; Right Angle; and Instruction Manual.

Power Supply – TEKPROBE™ Power Supply. For use with oscilloscopes without TEKPROBE BNC interface (TDS 300 Series). Order 1103.

SMD PROBING ADAPTERS*1

SureFoot™ Adapters –

50 mil pitch. Order SF501.
25 mil and 0.65 mm pitch. Order SF502.
0.5 mm pitch. Order SF503.



See Tektronix on the World Wide Web:
<http://www.tek.com>



Tektronix Measurement products are manufactured in ISO registered facilities.

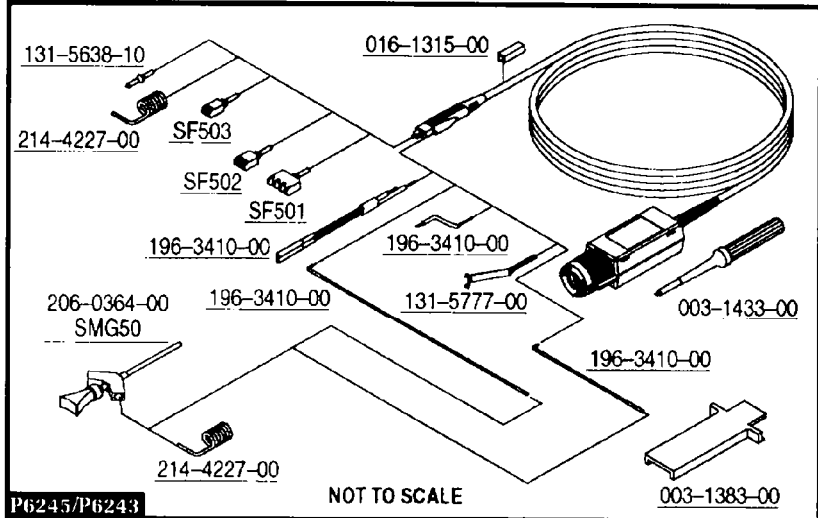
Probe Accessories

P6245 • P5100 • P5102

ORDERING INFORMATION

P6245/P6243

Part Number	Description
003-1383-00	Compensation Box Cover Removal Tool.
003-1433-00	Adjustment Tool.
003-1433-01	Package of 5 each of 003-1433-00
016-1315-00	2 each - 5 Colors of Cable Markers
131-5638-10	10 each - Solderable Probe Tips.
131-5777-00	100 mil Square-pin Ground Adapter.
196-3410-00	Ground lead set includes: 2 each - 1 in., 3 in., 6 in. Ground Leads w/Square Pin Receptacle. 2 each - Y Lead Adapters.
206-0364-00	SMT KlipChip™, 1 each.
214-4227-00	Right Angle Square-pin Adapter.
SF501	SureFoot™ Probe Tip Adapter, pkg. of 12, Yellow, 50 mil Pitch.
SF502	SureFoot™ Probe Tip Adapter, pkg. of 12, Blue, 25 mil/0.65 mm Pitch.
SF503	SureFoot™ Probe Tip Adapter, pkg. of 12, Red, 0.5 mm pitch.
SMG50	SMT KlipChip™, 20 each.

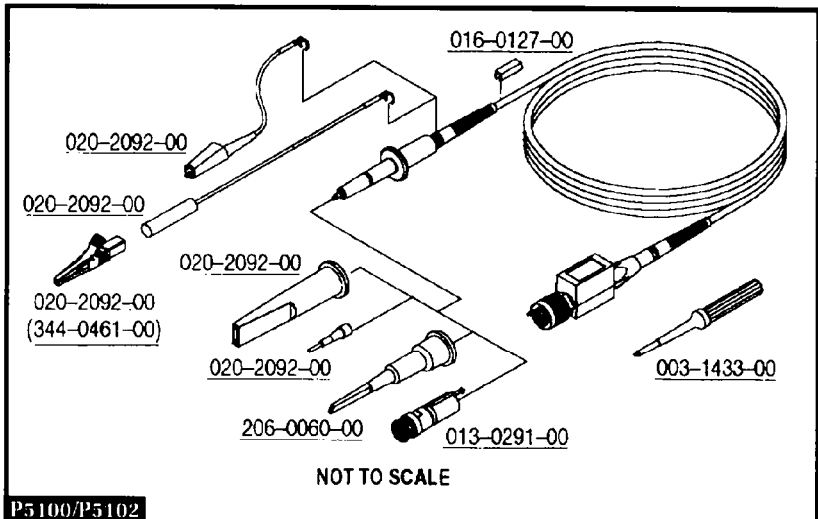


P6245/P6243

NOT TO SCALE

P5100/P5102

Part Number	Description
020-2092-01	P5100 Accessory Kit Includes: Regular Retractable Hook Tip. Large Retractable Hook Tip. 6 in. Ground Lead w/Alligator Clip. 18 in. Ground Lead w/4 mm Shielded Banana Plug. Large Crocodile Clip.
196-3424-00	P5102 Common Lead Set (Not Shown)
003-1433-01	Package of 5 each of 003-1433-00, above.
013-0291-00	P5100 Probe Tip to BNC Adapter.
016-0127-00	Cable Marker Set.
206-0060-00	Spring Tip (0.08 in. dia.).
344-0461-00	Large Crocodile Clip.



P5100/P5102

NOT TO SCALE

For your local Tektronix representative see the list in the back of this catalog or outside the U.S. call: 1-503-627-1933, inside the U.S. call: 1-800-426-2200.



See Tektronix on the World Wide Web.
<http://www.tek.com>



ISO 9001 Tektronix Measurement products are manufactured in ISO registered facilities.